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<b>PRE-APPEAL BRIEF REQUEST FOR REVIEW</b>		Docket Number (Optional) 67,200-1109 (2002-1266)	
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Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.  This request is being filed with a notice of appeal.  The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.			
I am the <input type="checkbox"/> applicant/inventor. <input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96) <input checked="" type="checkbox"/> attorney or agent of record. 31,311 Registration number _____ <input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____		 Signature Randy W. Tung Typed or printed name 248-540-4040 Telephone number 06/14/2006 Date	
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below".			
<input type="checkbox"/> *Total of _____ forms are submitted.			

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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APPELLANTS: Yang et al.

Group Art Unit: 1765

Serial No.: 10,719,550

Examiner: Chen, Kin-Chan.

Filed: 11/21/2003

In Response to Office Action

Dated: 02/14/2006

For: PROCESS FOR REMOVING TUNGSTEN PARTICLES

AFTER TUNGSTEN ETCH-BACK

Attorney Docket No.: 67,200-1109(2002-1266)


**CERTIFICATE OF MAILING OR FACSIMILE TRANSMISSION**

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Randy W. Tung

Printed Name

Please forward all correspondence to

  
Signature

6/14/06

Date

TUNG &amp; ASSOCIATES

838 W. Long Lake Road, Suite 120  
Bloomfield Hills, MI 48302**PRE-APPEAL BRIEF**

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Va 22313-1450

Sir:

Applicants request review of Examiner's final rejection,  
dated 02/14/2006.

**SUMMARY OF CLAIMED SUBJECT MATTER**

The claimed subject matter is directed a process for solving

the problem of removing ~~removing oxidized metal (tungsten)~~ residues from a metal plug following a metal etchback process (see Applicants discussion of the problem presented in the prior art at paragraph 009, Specification).

#### Questions for Review

1. Whether Examiner has made out a *prima facie* case for rejection of Claims 13-15, 19, and 21-25 under 35 USC 112, first paragraph, as failing to comply with the written description requirement.

With respect to claims 13-15, and 19, Examiner alleges that in claim 13, line 7, "without photoresist present" is new matter. Examiner has failed to point out why and how one of ordinary skill would understand a tungsten etchback planarization process to not be understood by one of ordinary skill as being performed without photoresist present as is clearly shown by Applicants in Figures 2B and 2C. See arguments of Applicants in Request for Reconsideration filed on or about 6/14/06, at pages 10-13.

With respect to claims 21-25, Examiner further asserts that the term "alkanolamine" in claim 21 is new matter, even though Applicants have specifically pointed out support in the Specification in the previous office action and at paragraph 0032 of the Specification where two specific instances of the generic alkanolamines have been disclosed, i.e., monoethanolamine; and

monoisopropanolamine." See arguments of Applicants in Request for Reconsideration filed on or about 6/14/06, at pages 14-15.

2. Whether Examiner has made out a *prima facie* case for rejection of Claims 1, 2, 5, 9, 10, 12-14, 17, and 21-25 under 35 USC 103(a) as being unpatentable over Lee et al. (US20030228990), as evidenced by alleged admitted prior art as evidenced by Chou (US 6,235,644), Shinohara (US 6,355,553), and Kadomura (US 5,227,337).

Lee et al., disclose "A residue remover **for removing polymeric material and etch residue** (see Abstract, paragraph 0056) that includes 2-(2-aminoethylamino)-ethanol (AEEA) (see paragraph 0067) and optionally another two-carbon atom linkage alkanolamine compound, gallic acid or catechol, water, a polar organic solvent, and **hydroxylamine**. Lee et al. teach that the solution may be used for removing **photoresist** or other residue from a substrate, such as an integrated circuit semiconductor wafer including **titanium metallurgy**"... "**without attacking titanium or other metallurgy** on the substrate". (see Abstract; paragraphs 0056-0058).

Examiner states that Chou, Shinohara, and Kadomura are not relied upon (see paragraph 5 of Final Rejection 2/14/2006) in rejection but **only to support a statement that Applicants**

**disclosed tungsten etchback process is "well-known"**. see also Applicants discussion of the teachings of Chou, Shinohara, and Kadomura in Applicants in Request for Reconsideration filed on or about 6/14/06, at pages 18-19. Applicants discussion of the problems presented in the prior art at paragraph 009 are also relied on to show the **tungsten etchback process is "well-known"**.

**Applicants disclose that a commercially available oxidizer solution may be used in Applicants process (see paragraph 0036; Specification)**. See also arguments of Applicants in Request for Reconsideration filed on or about 6/14/06, at pages 16-19.

The essential question to be reviewed is whether Examiner has made out a *prima facie* case of obviousness where Examiner has shown in light of the teachings of Lee et al. (a residue remover **for removing polymeric material and etch residue without attacking metals**) that 1) there are several different ways of conducting a tungsten(metal) etch-back process in the prior art (as evidenced by Chou, Shinohara, Kadomura, and Applicants discussion of the prior art); and 2) where Examiner has failed to show Applicants claimed metal removal process following a metal planarization or metal (tungsten) etchback process, or any suggestion thereof in the prior art; and 3) where Examiner has failed to show in the prior art any recognition of the problem presented and solved by Applicants disclosed and claimed

invention.

"Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure." *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

It is therefore respectfully submitted that the Panel of Examiners find that the Final Rejection is improper under the statutory standard of 35 USC § 103(a) since Applicants disclosed and claimed process or any suggestion thereof has been shown in the prior art.

Respectfully submitted,

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JUN 14 2006

**United States Patent and Trademark Office OG Notices: 12 July 2005****New Pre-Appeal Brief Conference Pilot Program**

Effective Date: Effective upon publication of this notice

This new program offers applicants an avenue to request that a panel of examiners formally review the legal and factual basis of the rejections in their application prior to the filing of an appeal brief. Effective immediately, the USPTO is offering applicants an optional procedure to review the examiner's rejection prior to the actual filing of an appeal brief. The program is intended to spare applicants the added time and expense of preparing an appeal brief if a panel review determines an application is not in condition for appeal. Although this procedure will not be appropriate in every appealed application, in the proper situations it can save both the resources of the applicant and the Office. Applicants continue to have available to them the normal practice and procedures already in effect under Part 41 of the Title 37 of the Code of Federal Regulations relating to appeals and practice before the Board of Patent Appeals and Interferences.

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**1. General Provisions:****. What is this program?**

Under the current practice every applicant whose claims have been twice rejected may appeal the examiner's decision to the Board of Patent Appeals and Interferences. To do so, the applicant first files a notice of appeal accompanied by the appropriate fee i within the appropriate time period ii.

Within two months from the date of the filing of the notice of appeal, applicant must file an appeal brief accompanied by the appropriate fee iii. Applicants may buy extensions of time for filing the appeal brief.

This pilot program offers applicants an opportunity to request a review of identified matters on appeal employing an appeal conference currently employed in the Office, but prior to the filing of an appeal brief. The goals of the program are (1) to identify the presence or absence of clearly improper rejections based upon error(s) in facts, or

(2) to identify the omission or presence of essential elements required to establish a prima facie rejection.

**. Who can use this program?**

Any applicant who has filed a notice of appeal and who wants a panel of experienced examiners to perform a detailed review of appealable issues within a set period of time.

. How to decide if you should request this panel review?

If the applicant feels the rejections of record are clearly not proper and are without basis, then filing this request may result in a panel decision that eliminates the need to file an appeal brief. This should be based upon a clear legal or factual deficiency in the rejections rather than an interpretation of the claims or prior art teachings. The latter is more appropriate for the traditional appeal process currently employed by applicants.

. What happens during a panel review?

A panel of examiners (including the examiner of record) will consider the merits of each ground of rejection for which appeal has been requested and will issue a written decision as to the status of the application.

. When should you file an appeal brief or other correspondence?

This program is designed to allow applicants who think there is a clear deficiency in the *prima facie* case in support of a rejection to file the request at the same time that they file a notice of appeal. This affords the Office the best opportunity to ensure that applicant will promptly receive a decision on the request. If the request is filed with the notice of appeal, the period of time for filing the appeal brief will be the later of the two-month period set in 37 CFR 41.37(a) or one month from the mail date of the decision on the request.

. What actions will terminate the panel's review?

If applicant files any of the following responses after filing a request, but prior to a decision by the appointed panel of examiners assigned to conduct the review, the review process will end and a decision will not be made on the merits of the request:

- an appeal brief
- a request for continued examination (RCE)
- an after-final amendment
- an affidavit or other evidence
- an express abandonment

A request for the declaration of an interference will also result in an end to the review process. Applicant will be promptly notified by an Office communication of termination or of dismissal of the request. If any of the above-noted actions occur, the period for filing the appeal brief (if applicable) will be the later of the two-month period set in 37 CFR 41.37(a) or one month from the mail date of the decision on the request.

2. Conditions Necessary to Request a Panel Review: